

commonly used in the field of medical devices when it is necessary to indicate an interaction with a patient in the claim language, so that a function relating to the patient can be claimed with proper antecedent basis, but without "claiming the patient." Similarly, the term "adapted for" and the term "for use with" are often employed to describe a circuit that has a connection to a power grid or mains supply, which is necessary to describe the way that the circuit receives power, but without claiming the public power grid or mains supply as a part of the invention.

This is exactly the way those terms have been used in claim 1 because, in order to appropriately describe the environment in which the claimed apparatus functions, it is necessary to describe the presence of a peripheral device, but the peripheral device is not considered by the Applicants as a part of their invention. Therefore, the actual connection to the process computer, although it must be present in order for the claiming of the apparatus to be "complete," is only a part of the invention in terms of being an available connection, but not an actual connection to the peripheral device, because this would then mean that the peripheral device has to be claimed as a part of the invention.

Therefore, Applicants submit that the use of these terms in claim 1 is precisely for the advancement of the purposes of the second paragraph of 35 U.S.C. §112, which requires that the claims "particularly point out and distinctly claim the subject matter which the Applicant regards as his invention." Since the Applicants do not regard the peripheral computer as a part of the invention, it is essential, in order to comply with §112, second paragraph, that the aforementioned language be used in claim 1.

Applicants recognize the implications that follow from the use of this language in claim 1 that were noted by the Examiner, but since these implications are entirely consistent with Applicants' intent, these implications are perfectly acceptable to the Applicants. The mere presence of such language in claim 1 is not a basis for rejecting a claim under §112, second paragraph, it merely requires that the Examiner examine the claim in the manner noted by the Examiner.

Claim 1, therefore, is submitted to be in full compliance with all provisions of §112.

Claim 1 also was rejected under 35 U.S.C. §102(b) as being anticipated by Ning. This reference was cited for the first time in the final rejection, and therefore Applicants have not had an opportunity to provide comments with regard to the teachings of that reference.

The rejection of claim 1 is being anticipated by Ning is respectfully traversed for the following reasons.

In substantiating the rejection of claim 1 based on the Ning reference, the Examiner has relied on the gantry 206 thereof as conforming to the "single structural unit" of claim 1. In this regard, Applicants consider the Ning reference to be merely cumulative with respect to previous references relied upon by the Examiner on that basis. As argued in Applicants' previous response, the gantry of a computed tomography apparatus does not and cannot conform to the "single structural unit" set forth in claim 1.

As explicitly stated in claim 1, the "single structural unit" has a housing and this housing *contains* all of the components that are operable in combination for generating x-rays, and these components include a digital control, regulation and

storage unit, which is connected to the other components. This digital control, regulation and storage unit, *contained* in the aforementioned housing of the aforementioned single structural unit, is stated in claim 1 to have an interface that is accessible at the structural unit and is adapted for connection to a process computer with which the apparatus is used. Claim 1 explicitly states that this interface forms a single interface to this process computer for all of the components in the single structural unit.

In the Ning reference, as in the references previously relied upon by the Examiner, the gantry is merely generally described, and a detailed description of the structure of the gantry is not provided in the Ning reference. Therefore, it must be assumed that the gantry in the Ning reference is of a conventional structure. As the Examiner is aware, in such a conventional gantry structure, the components used to generate x-rays, namely an x-ray tube and a control, regulation and storage unit therefor, are not *contained* in a single structural unit, but instead are distributed around the gantry, and typically are mounted at or on the gantry. The gantry typically is a rim or ring with these various components mounted thereon. The rim or ring with the components mounted thereon may be surrounded by or enclosed by a housing in which the gantry rotates, but such a housing is not a part of the gantry itself, but instead surrounds the gantry. Moreover, in such a conventional configuration, each of the components mounted at the gantry, as explained in the introductory portion of the present specification, has its own interface connections to various computers, to allow data to be downloaded from those components. There is no digital control, regulation and storage unit that has an access to a peripheral

computer, which forms a single interface to the peripheral computer for all of the components in the aforementioned structural unit.

Moreover, insofar as minimal details regarding the structure of the gantry are provided in the Ning reference, these teach away from the subject matter of claim 1, rather than being a basis for anticipating claim 1.

The only schematic illustration of any structure whatsoever for the gantry in the Ning reference is provided in Figures 7F, 7G and 9A, and clearly from that schematic illustration it is not contemplated that the gantry in Ning reference has any type of single structural unit that contains all of the components necessary to generate radiation, and clearly does not carry any type of digital control, regulation and storage unit with the aforementioned single interface.

In the block diagram shown in Figure 3, the dashed lines that are used to designate the CT gantry 206 cannot be taken as any type of structural indication, because identical dashed lines are used to designate the computer on gantry 302. If the computer on gantry 302 is truly on the gantry, then the dashed line surrounding the blocks in the CT gantry 206 cannot have any structural meaning, but is simply provided for indicating electrical groupings of components. In fact, in view of the slip ring 304, which is the device commonly used to transfer data from the rotating part (gantry) of a computed tomography apparatus to a stationary part, it must be assumed that everything in blocks 206 and 302 and 208 is in some manner located at the gantry. This being the case, there are numerous interfaces that exist among those components where data are, or could be, read out. There is no basis to arbitrarily select any of those interfaces as conforming to the interface of the digital

control regulation and storage unit set forth in claim 1, and clearly there is no single interface that operates as set forth in claim 1.

It is true that the data transfer module 322 of the CT gantry 206 has an interface to the real-time lossless image compress module 330, however, this is clearly only for the purpose of reading image data from the transfer module, and therefore this interface does not and cannot represent "a single interface to said process computer for all of the components in said structural unit" as specifically set forth in claim 1.

In fact, if there is any component in Figure 3 of Ning that corresponds to the digital control, regulation and storage unit, it is the CPU 310 on the gantry, and this communicates with the host computer 328 only through the slip ring 304. In fact, as stated at column 9, lines 15-18, all communication between components on the gantry 206 and the host computer system 306 take place through the slip ring 304. Clearly these components are distributed at various locations on the gantry, and therefore even if the slip ring 304 were considered to be a "single interface," it is not accessible at the aforementioned single structural unit, but instead is accessible (if at all) through the CPU 310.

Therefore, the Ning reference simply discloses the conventional arrangement of a number of components on the rotating gantry, with communication to the stationary computer via a slip ring. There is no single structural unit disclosed in the Ning reference as set forth in claim 1, and therefore there is no single structural unit having a single interface to a process computer for all of the components in the single structural unit, as also explicitly set forth in claim 1.

The Ning reference, therefore, does not disclose all of the elements of claim 1 as arranged and operating in that claim, and therefore does not anticipate claim 1.

The claims depending from claim 1 were rejected based on the Ning reference, and various combinations of secondary references, under 35 U.S.C. §103(a). For the reasons discussed above, even if the device disclosed in the Ning reference were modified in accordance with the teachings of any of those secondary references, the subject matter of the dependent claims still would not result, since each of those dependent claims embodies the subject matter of claim 1 therein.

All claims of the application are therefore submitted to be in condition for allowance.

The present response does not raise any new issues requiring further searching or consideration, and therefore entry and consideration thereof after the final rejection are proper, and are respectfully requested.

Submitted by,

 (Reg. 28,982)

SCHIFF, HARDIN LLP  
**CUSTOMER NO. 26574**  
Patent Department  
6600 Sears Tower  
233 South Wacker Drive  
Chicago, Illinois 60606  
Telephone: 312/258-5790  
Attorneys for Applicants.

CH1\ 4487866.1